

# TD-8841 External ADSL Router



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http://www.tp-link.com

# FCC STATEMENT



This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interference.
- 2) This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

# **CE Mark Warning**

# CE

This is a class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

# SAFETY NOTICES

#### Caution:

- 1) Do not use this product near water, for example, in a wet basement or near a swimming pool.
- 2) Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.

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# **Package Contents**

The following items should be found in your package:

- > One TD-8841 External ADSL2+ Router
- > One AC power Adapter for TD-8841 External ADSL2+ Router
- > One Resource CD for TD-8841 External ADSL2+ Router, including:
  - This Guide
  - Quick installation Guide Program
  - Other Helpful Information
  - USB driver
- > Quick installation Guide
- > One RJ45 cable
- Two RJ11 cables
- > One ADSL splitter
- > One USB cable

#### P Note:

Make sure that the package contains the above items. If any of the listed items are damaged or missing, please contact with your distributor.

# **Chapter 1. Product Overview**

With the excellent circuit design and high quality production, we guarantee the ADSL2+ Router's high performance, great stability and easy to use.

In addition to the basic DMT physical layer functions, the ADSL2+ PHY supports dual latency ADSL2+ framing (fast and interleaved) and the I.432 ATM Physical Layer.

The TD-8841 is a complete plug-and-play solution. With standard Ethernet interface, it can be directly connected to any 10M/100M Ethernet devices, support Auto-MDIX.

The TD-8841 not only uses html (web mode through Ethernet port) to configure the Router but also uses external utility software. You can download it from our website (<u>http://www.tp-link.com</u>).

# **1.1 Product Main Specification**

- > High speed and asymmetrical data transmit mode, provides safe and exclusive bandwidth
- > Supports All ADSL2+ industrial standards
- > Compatible with all mainstream DSLAM (CO)
- > Firmware upgradeable
- > Provides integrated access of internet and route function which face to SOHO user
- > Advanced DMT modulation and demodulation
- > Real-time Configuration and device monitoring
- Quick response semi-conductive surge protection circuit, provides reliable ESD and surge-protect function

# **1.2 Supporting Protocol**

- > G.992.1 (G.dmt) Annex A/B/C
- > G.992.2 (G.lite) Annex A/B/C
- > ANSI T1.413
- > G.992.3 (ADSL2) Annex A/B/C/M and Annex L (RE-DSL) compliant
- > G.992.5 (ADSL2+) Annex A/B/C and Annex L (RE-DSL) compliant
- > ADSL dual latency (fast path and interleaved path)
- > I.432 ATM physical layer compliant
- > Supports RFC2364 (PPPoA)
- Supports RFC2516 (PPPoE)

- Supports RFC1483 (EoA)(Bridged \*and Router)
- Supports RFC1577 (IPoA)
- **Note:** "\*" Needs the third-party software.

#### 1.3 Transmit Data-rate

- Max download data-rate: 24Mbps
- Max upload data-rate: 3.5Mbps
- > Max line length: 6Km

## 1.4 ATM Property

- > AAL0, AAL5, OAM, RM, and raw cell types supported
- Direct hardware support for 4 Receive VCs, with additional RX VCs and TX VCs supported in software
- > Full 24-bit Virtual Path Identifier (VPI) and Virtual Circuit Identifier (VCI)

## 1.5 System Support

- Support PVC
- > Support NAT、DHCP and so on
- > Support IEEE 802.3、IEEE 802.3u
- > Support 10Base-T/100BASE-TX full-duplex or half duplex Ethernet
- Support Auto-MDIX
- Support USB 1.1 device interface

## **1.6 Working Environment**

- > Operating temperature: 0 °C ~40 °C
- Storage temperature: -40 °C ~70 °C
- Humidity: 10%~90% (non-condensing)

# **Chapter 2. Hardware Installation Guide**

The TD-8841 maintains six separate interfaces, including four Ethernet interfaces, one USB interface and one ADSL interface. The Router should not be located where it will be exposed to moisture or excessive heat. Place the Router in a location where it can be safely connected to the various devices as well as to a power source.

# 2.1 System requirement

Confirm your computer has been installed with networking interface card (NIC) before connecting ADSL2+ Router to your computer, with the operating system supporting the TCP/IP protocol.

# 2.2 LED explanation

The front panel of ADSL2+ Router includes one power indicator (RED) and eight function indicators (GREEN), as explained in following chart:

Name	Status	Indication			
PWR	On	Power OK			
FVK	Off	Power fail			
	Slow flash	Self-detecting when power on			
ADSL	Quick flash	The LINE port is connecting to ISP's network			
ADSL	On	The LINE port has connected to ISP's network			
	Off	The LINE port has no connection			
ALARM	On	There is mistake when ADSL transmitting or receiving data			
ALARIN	Off	ADSL normal			
	On	There is data transmitting or receiving on WAN port			
ACT	Off	No data is being transmitted or received on WAN port			
	On	Connection to telecom network is OK			
USB	Off	Connection on USB port is abnormal			
	Flash	Data is being transmitted or received			
	On	LAN port is normal			
LAN(1~4)	Off	Connection on LAN port is abnormal			
	Flash	Data is being transmitted or received on LAN port			

## 2.3 Rear-panel

> **ON/OFF**: Turn on/off the ADSL2+ Router's power.

- Power (9V AC/0.8A input): please do not use any unknown power adaptor; otherwise your ADSL2+ Router may be damaged.
- RESET (reset default): First press the reset button of Router, then turn on the Router's power for at least three seconds. It will resume the default manufacturer's setup.
- > LAN: Connect with your computer's NIC.
- > **USB**: Connect with your computer's USB interface
- > LINE (WAN): Connect to the MODEM Port of Splitter or Connect to the telephone line.

## 2.4 Hardware installation procedures

The procedure to install the Router can be described in general terms in the following steps and shown as Figure 2-1:

**First Step**: Connecting the MODEM port of Splitter with the LINE port of the TD-8841 ADSL2+ Router by telephone line. While you need to use a telephone, please attach telephone line into the phone of Splitter.

**Second Step**: Connect category 5 cable with RJ45 jacks to ADSL2+ Router's LAN port and your computer's NIC. Or connect USB cable to ADSL2+ Router's USB port and your computer's USB interface.

**Third Step**: Plug one end of the AC Power Adapter into the Power jack on the Ethernet ADSL2+ Router and the other end to a standard electrical outlet.

Last Step: Check the line connection to see if everything is ready. Power up finally.

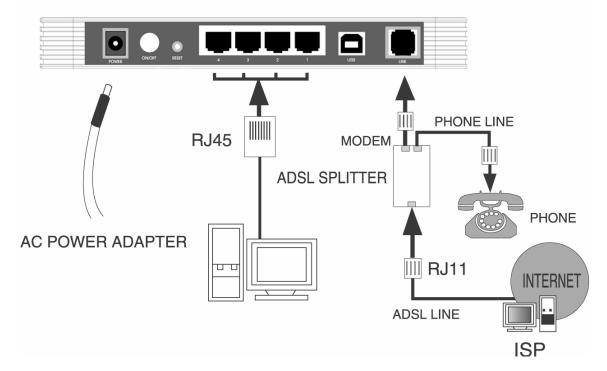


Figure 2-1

# **Chapter 3. System Configuration**

## 3.1 Computer Configuration

The default IP address of the ADSL2+ Router is 192.168.1.1, and the default Subnet Mask is 255.255.255.0. These values can be seen from the LAN, and can be changed as your desire. As an example, we use the default values for description in this guide.

- 1. Connect the cable according to Chapter 2, turn on the power.
- Connect the local PCs to the ADSL2+ Router's LAN port. There are then two means to configure the IP address for your PCs.
- > Configure the IP address manually
  - 1) Set up the TCP/IP Protocol for your PC(s).
  - Configure the network parameters. The IP address is 192.168.1.xxx ("xxx" is from 2 to 254), Subnet Mask is 255.255.255.0, and Gateway is 192.168.1.1 (The ADSL2+ Router's default IP address).
- > Obtain an IP address automatically
  - Set up the TCP/IP Protocol in "Obtain an IP address automatically" mode on your PC(s).
  - 2) The built-in DHCP server will assign IP addresses for the PC(s).

#### P Note:

If you need instructions as to how to do this, please refer to <u>Appendix B: Configuring the PCs</u>.

Remarks: you can check whether your configuration is successful through PING command. Enter Ping 192.168.1.1

If the screen looks like the following, you have been successful.

Pinging 192.168.1.1 with 32 bytes of data: Reply from 192.168.1.1 : bytes=32 time<1ms TTL=128 Ping statistics for 192.168.1.1 : Packets: Sent = 4, Received = 4, Lost = 0 (0% loss), Approximate round trip times in milli-seconds: Minimum = 0ms, Maximum = 0ms, Average = 0ms

If the screen looks like the following, the connection has failed. Please try again.

```
Pinging 192.168.1.1 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 192.168.1.1:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

## 3.2 Login

Startup Internet Explorer, and enter 192.168.1.1;then enter default user name (admin), password (admin), When ADSL2+ connection is OK, you will see the Figure 3-1.

Connect to 19	2.168.1.1	? 🛛
		45
DSL Router		
<u>U</u> ser name:	🖸 admin	*
Password:	••••	
	Remember my pass	word

Figure 3-1

You will then see the Figure 3-2. You will see some information such as link rate and so on.



#### **Device Info**

Board ID:	96338L-2M-8M
Software Version:	3.02L.09.A2pB019b8.d16m
Bootloader (CFE) Version:	1.0.37-0.8

This information reflects the current status of your DSL connection.

Line Rate - Upstream (Kbps):	
Line Rate - Downstream (Kbps):	
LAN IP Address:	192.168.1.1
Default Gateway:	
Primary DNS Server:	192.168.1.1
Secondary DNS Server:	192.168.1.1



Default value of user name and password is "admin"; if you want to change them, please go to "Management"  $\rightarrow$  "Access control" $\rightarrow$ "Passwords" changing them. (Figure 3-3)

TP-LINK		
LP-LINK		
TD-8841	Access Control Passwords	
	Access to your DSL router is controlled th	rrough three user accounts: admin, support, and user.
Device Info	The user name "admin" has unrestricted	access to change and view configuration of your DSL Router.
Advanced Setup		
Diagnostics	The user name "support" is used to allow	an ISP technician to access your DSL Router for maintenance and to run diagnostics.
Management	The user name "user" can access the DSI	L Router, view configuration settings and statistics, as well as, update the router's software.
Settings		
System Log	Use the fields below to enter up to 16 ch	aracters and click "Apply" to change or create passwords. Note: Password cannot contain a space.
Access Control	Username:	~
Services	Username:	×
IP Addresses	Old Password:	
Passwords	New Password:	
Update Software		
Save/Reboot	Confirm Password:	
		Save/Apply

Figure 3-3

## 3.3 Web Setup

Choose "Advanced Setup"→"WAN", you will enter the page of Wide Area Network (WAN) Setup, you will see the Figure 3-4.

TD-8841	Choose Add	d, Edit, or		onfigure WA	N interfaces. d reboot the						
vanced Setup	VPI/VCI	Con. ID	Category	Service	Interface	Protocol	Igmp	Qo5	State	Remove	Edit
YAN AN	0/32	1	UBR	br_0_32	nas_0_32	Bridge	N/A	Disabled	Enabled		Edit
ecurity outing	1/33	1	UBR	br_1_33	nas_1_33	Bridge	N/A	Disabled	Enabled		Edit
SL agnostics	0/35	1	UBR	br_0_35	nas_0_35	Bridge	N/A	Disabled	Enabled		Edit
nagement	0/100	1	UBR		nas_0_100	Bridge	N/A	Disabled	Enabled		Edit
	8/35	1	UBR	br_8_35	nas_8_35	Bridge	N/A	Disabled	Enabled		Edit
	8/81	1	UBR	br_8_81	nas_8_81	Bridge	N/A	Disabled	Enabled		Edit
	0/200	1	UBR	br_0_200	nas_0_200	Bridge	N/A	Disabled	Enabled		Edit
					Ac	dd) Rem	ove	Save/F	Reboot	]	



There are 7 PVC links in the **WAN** setup page, choose the fit PVC according to your needs, and then click the **edit** button, you will enter the page of ATM PVC Configuration (See Figure 3-5).

TP-LINK	
TD-8841	
Device Info	
Advanced Setup	
WAN	
LAN	ATM PVC Configuration This screen allows you to configure an ATM PVC identifier (VPI and VCI) and select a service category. Otherwise choose an existing interface by selecting
Security	the checkbox to enable it.
Routing DSL	
Diagnostics	VPI: [0-255] 0
Management	VCI: [32-65535] 32
	Service Category: UBR Without PCR 🗸
	Enable Quality Of Service
	Enabling packet level QoS for a PVC improves performance for selected classes of applications. QoS cannot be set for CBR and Realtime VBR. QoS consumes system resources; therefore the number of PVCs will be reduced. Use <b>Advanced Setup/Quality of Service</b> to assign priorities for the applications.
	Enable Quality Of Service
	Back Next

Figure 3-5

Enter **VPI/VCI** value and service category which is provided by your ISP, click **next** to enter the next step. You will see the Figure 3-6.

#### P Note:

The type of network protocol selected may be different in different areas, there are five types (Figure 3-7), So you should ask your ISP to acquire the local type of network protocol and Encapsulation mode.

TP-LINK	
TD-8841	Connection Type
	Select the type of network protocol and encapsulation mode over the ATM PVC that your ISP has instructed you to use. Note that 802.1q VLAN tagging is
Device Info Advanced Setup	only available for PPPoE, MER and Bridging.
WAN	O PPP over ATM (PPPoA)
LAN Security	O PPP over Ethernet (PPPoE)
Routing	
DSL	MAC Encapsulation Routing (MER)
Diagnostics Management	O IP over ATM (IPoA)
	Bridging
	Encapsulation Mode LLC/SNAP-BRIDGING V
	Back Next
	TP-LINK TECHNOLOGIES CO., LTD. Web www.p-link.com

Figure 3-6

After choosing the proper protocol, enter the correct parameters supported by your ISP. Enable the configurations, then you will go to Internet.

#### > PPP over ATM (PPPoA)

If you select the protocol of PPP over ATM (PPPoA), you will see the Figure 3-7, enter the value of user name and password which is provided by your ISP, after selecting the other function (often using the default setup), click the **next** button.

TP-LINK	
TD-8841	PPP Username and Password
	PPP usually requires that you have a user name and password to establish your connection. In the boxes below, enter the user name and password that
Device Info	your ISP has provided to you.
Advanced Setup	
WAN	
LAN	PPP Username:
Security	PPP Password:
Routing	Authentication Method:
DSL	Autoentication Method:
Diagnostics Management	Dial on demand (with idle timeout timer)
	PPP IP extension Use Static IP Address
	Back Next
$g_{e}$	TP-LINK TECHNOLOGIES CO., LTD. Webwww.tp-link.com

Figure 3-7

You will see the Figure 3-8. Then turn on the selected functions according to your demands. Clicking the **next** button to enter the next step, you will see the Figure 3-9, finally click **save** to complete the configuration.

Enable IGMP Multicas Enable IGMP Multicast Enable WAN Service Service Name			
Enable WAN Service			
Service Name	br_0_32		
		Back	
		TP-LINKTECHNOL	Back (Next)

Figure 3-8

3841 WAN Setup - Summ	ary		
Make sure that the set	ttings below match the sett	s provided by your ISP.	
) uns dues	0.100		
VPI / VCI:	0/32		
Connection Type:	PPPoA		
Service Name:	br_0_32		
Service Category:	UBR		
IP Address:	Automatically Assigned		
Service State:	Enabled		
nt NAT:	Enabled		
Firewall:	Enabled		
IGMP Multicast:	Disabled		
Quality Of Service:	. Disabled		
Click "Save" to save th	iese settings. Click "Back" t	rface and further configure services over this interface.	
NOTE: You need to rel		Back	
NOTE: You need to rel		Back Save	
NOTE: You need to rel		Back Save	
NOTE: You need to rel		Back Save	
NOTE: You need to rel		Back	

Figure 3-9

#### > PPP over Ethernet (PPPoE)

If you select the protocol of PPP over Ethernet (PPPoE), you will see the Figure 3-10, enter the value of user name and password which is provided by your ISP, after selecting the other function (often using the default setup), click the **next** button.

TP-LINK	
TD-8841	PPP Username and Password
	PPP usually requires that you have a user name and password to establish your connection. In the boxes below, enter the user name and password that
Device Info	your ISP has provided to you.
Advanced Setup	
WAN	
LAN	PPP Username:
Security	PPP Password:
Routing	
DSL	PPPoE Service Name:
Diagnostics Management	Authentication Method: AUTO
	Dial on demand (with idle timeout timer)
	PPP IP extension
	Use Static IP Address
	Back Next
	TP-LINKTECHNOLOGIES CO., LTD. Webwww.p-link.com

Figure 3-10

You will see the Figure 3-11. Then turn on the selected functions according to your needs. Clicking the **next** button to enter the next step, you will see the Figure 3-12, finally click **save** to complete the configuration.

TP-LINK				
<u>TD-8841</u>	Enable IGMP Multica	st, and WAN Service		
Device Info	Enable IGMP Multicast			
Advanced Setup	Enable WAN Service			
WAN	Enable WAN Service			
LAN	Service Name	br_0_32		
Security	Contraction Decomments	2 / 2 (BROAME, 2007)		
Routing DSL				
Diagnostics				
Management			Back Next	
		TP-LINKTECHNOLOGIES CO., LTD		

#### Figure 3-11

-8841	WAN Setup - Summ	ary		
	Make sure that the set	tings below match the set(	ngs provided by your ISP.	
fo				
l Setup	VPI / VCI:	0/32		
	Connection Type:	PPPoE		
	Service Name:	br_0_32		
	Service Category:	UBR		
	IP Address:	Automatically Assigned		
cs	Service State:	Enabled		
ent	NAT:	Enabled		
- inc	Firewall:	Enabled		
	IGMP Multicast:	Disabled		
	Quality Of Service:	Disabled		
	Click "Save" to save th NOTE: You need to ret	ese settings. Click "Back" t boot to activate this WAN i	terface and further configure s	ervices over this interface. Save

Figure 3-12

### > MAC Encapsulation Routing (MER)

If you select the protocol of MAC Encapsulation Routing (MER), you will see the page (Figure 3-13) Enter the parameter and the way which is provided by your ISP, then click the **next** button.

TP-LINK	
TD-8841 Device Info Advanced Setup WAN LAN Security Routing DSL Diagnostics Management	WAN IP Settings         Enter information provided to you by your ISP to configure the WAN IP settings.         Name: Configure state of PAU: In MER mode if "Obtain an IP address automatically" is chosen. Changing the default gateway or the DNS effects the whole system. Configuring them with static values will disable the automatic assignment from DHCP or other WAN connection.         If you configure state default gateway over this PVC in MER mode, you must enter the IP address of the remote gateway in the "Use IP address". The "Use WAN interface" is optional.         O obtain an IP address         Wan IP Address         WIN Subnet Mask:         O obtain default gateway automatically         Is the following default gateway:         Use the following DNS server addresses:         Primary DNS server:         Secondary DNS server:         Back       Next

Figure 3-13

You will see the Figure 3-14. Then turn on the selected functions according to your needs. Clicking the **next** button to enter the next step, you will see the Figure 3-15, finally click **save** to complete the configuration.

TP-LINK	
TP-LINK TD-8841 Device Info Advanced Setup WAN LAN Security Routing DSL Diagnostics Management	Network Address Translation Settings         Network Address Translation (NAT) allows you to share one Wide Area Network (WAN) IP address for multiple computers on your Local Area Network (LAN).         Enable NAT           Enable Firewall @         Enable IGMP Multicast, and WAN Service         Enable IGMP Multicast         Enable WAN Service         Service Name:         br_0_32
	T7-LINK TECHNOLOg (ES CO., LTD. UNEXXXXV; T-INK.com

Figure 3-14

wince Info     vPI / VCI:     0 / 32       vanced Setup     Connection Type:     MER       AN     Service Name:     br_0_32       scurity     Service Category:     UBR       buting     IP Address:     Automatically Assigned       Service State:     Enabled		Make sure that the set	<b>ary</b> tings below match the set
Strated Setup         WAN         LAN         Security         Routing         D5L         agnostics         anagement         Firewall:         Enabled         IGMP Multicast:         Disabled         Quality Of Service         Disabled         Click "Save" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.	evice Info		
AN AN AN AN Service Name: br_0_32 ecurity couting couting isL Service Category: UBR IP Address: Automatically Assigned Service State: Enabled NAT: Enabled NAT: Enabled Firewall: Enabled IGMP Multicast: Disabled Quality Of Service: Disabled Click "Save" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.	vanced Setup		
curity       Service Category: UBR         uting       IP Address:       Automatically Assigned         inostics       Service State:       Enabled         NAT:       Enabled         Firewall:       Enabled         IGMP Multicast:       Disabled         Quality Of Service:       Disabled         Click "Save" to save these settings. Click "Back" to make any modifications.         NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.		Connection Type:	MER
Dating       Define Category F, Ook         SL       IP Address:         Automatically Assigned         Service State:       Enabled         NAT:       Enabled         Firewall:       Enabled         IGMP Multicast:       Disabled         Quality Of Service:       Disabled         Click "Save" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.	Million and Annual A	Service Name:	br_0_32
SL       IP Address:       Automatically Assigned         gnostics       Service State:       Enabled         NAT:       Enabled         Firewall:       Enabled         IGMP Multicast:       Disabled         Quality Of Service:       Disabled         Click "Save" to save these settings. Click "Back" to make any modifications.         NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.		Service Category:	UBR
agnostics       Service State:       Enabled         inagement       NAT:       Enabled         Firewall:       Enabled         IGMP Multicast:       Disabled         Quality Of Service:       Disabled         Click "Save" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.		IP Address:	Automatically Assigned
Anagement           NAT:         Enabled           Firewall:         Enabled           IGMP Multicast:         Disabled           Quality Of Service:         Disabled           Click "Save" to save these settings. Click "Back" to make any modifications.           NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.		Service State:	Enabled
Firewall:         Enabled           IGMP Multicast:         Disabled           Quality Of Service:         Disabled           Click "Save" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.		NAT	Enabled
IGMP Multicast:       Disabled         Quality Of Service:       Disabled         Click "Save" to save these settings. Click "Back" to make any modifications.         NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.	nagemenc	1000000	
Quality Of Service:         Disabled           Click "Save" to save these settings. Click "Back" to make any modifications.           NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.			
Click "Save" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.		IGMP Multicast:	Disabled
NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.		-	
		Quality Of Service:	
		Quality Of Service:	" ese settings, Click "Back" t
		Quality Of Service:	" ese settings, Click "Back" t
		Quality Of Service:	" ese settings, Click "Back" t

Figure 3-15

#### > IP over ATM (IPoA)

If you select the protocol of IP over ATM (IPoA), you will see the Figure 3-16, enter the parameter and the way which is provided by your ISP, then click the **next** button.

TP-LINK	
<u>TD-8841</u>	WAN IP Settings
	Enter information provided to you by your ISP to configure the WAN IP settings.
Device Info Advanced Setup	Notice: DHCP is not supported in IPoA mode. Changing the default gateway or the DNS effects the whole system. Configuring them with static values will disable the automatic assignment from other WAN connection.
WAN LAN	WAN IP Address: 198.168.1.1
Security Routing	WAN Subnet Mask: 255.255.0
DSL Diagnostics	✓ Use the following default gateway:
Management	Use IP Address: 192.168.1.1.145
	Use the following DNS server addresses:         Primary DNS server:       192.168.1.1         Secondary DNS server:       192.168.1.1
	Back Next
0.1	TP-LINKTECH NOLOGIES CO., LTD. UKŁ XWW.Q-TIIK.com

Figure 3-16

You will see the page (Figure 3-17), then turn on the selected functions according to your needs. Clicking the **next** button to enter the next step, you will see the Figure 3-18, finally click **save** to complete the configuration.

TP-LINK	
<u>TD-8841</u>	Network Address Translation Settings
Device Info	Network Address Translation (NAT) allows you to share one Wide Area Network (WAN) IP address for multiple computers on your Local Area Network (LAN).
Advanced Setup	Enable NAT 🕑
WAN	Enable Firewall 🔽
Security	
Routing DSL	Enable IGMP Multicast, and WAN Service
Diagnostics	Enable IGMP Multicast
Management	Enable WAN Service  Service Name: br_0_32
	Back
	TP-LINK TECHNOLOGIES CO., LTD. Webawwits-linkoom

Figure 3-17

TD-8841	WAN Setup - Summ	1925.02	the settings provider	by your ISP		
vice Info			and seconds provided	, og 700, 107 f		
anced Setup	VPI / VCI:	0 / 32				
	Connection Type:	IPoA				
	Service Name:	br_0_32				
irity	Service Category:	UBR				
ting	IP Address:	192.168.1.1				
nostics	Service State:	Enabled				
igement	NAT:	Enabled				
	Firewall:	Enabled				
	IGMP Multicast:	Disabled				
	Quality Of Service:					
	Quality of Service.	Disableu				
	Click "Save" to save the NOTE: You need to reb		s WAN interface and		services over thi	is interface.
				Back	Save	
				Back	Save	
				Back	Save	

Figure 3-18

### > Bridging

If you select the Bridging protocol, you just open the bridge service function options, you will see the Figure 3-19, then click the **next** button, you will see the Figure 3-20, finally press **save** to complete the configuration.

TP-LINK		
<u>TD-8841</u>		
	Unselect the check b	oox below to disable this WAN service
Device Info	Table Dates Control	
Advanced Setup	Enable Bridge Service:	
WAN	Service Name:	br_0_32
LAN	Doi neo namor	
Security		
Routing		
DSL		Back
Diagnostics		
Management		

Figure 3-19

TP-LINKTECHNOLOGIES CO., LTD. Web www.tp-link.c

12/ //		
TP-LIN	ĸ	
TD-8841	WAN Setup - Summ	ary
	Make sure that the set	tings below matc
Device Info	-	
Advanced Setup	VPI / VCI:	0/32
WAN	Connection Type:	Bridge
LAN	Service Name:	br_0_32
Security	Service Category:	UBR
Routing	IP Address:	Not Applicable
DSL	Service State:	Enabled
Diagnostics		
Management	NAT:	Enabled
	Firewall:	Enabled
	IGMP Multicast:	Not Applicable
	Quality Of Service:	Disabled
	Click "Save" to save the NOTE: You need to reb	
		00000 00000000

Figure 3-20

#### P Note:

After you complete the settings, the new settings must be saved and the Router must be restarted for the settings to go into effect. Please press the Save/Reboot button to restart, referring to the Figure 3-21.

<u>TD-8841</u>	Choose Ad	d, Edit, or		onfigure WA	N interfaces. d reboot the						
evice Info Idvanced Setup	-	-	2	-			-			[	-
WAN	VPI/VCI	Con. ID	Category	Service	Interface	Protocol	Igmp	Qo5	State	Remove	Edit
LAN	0/32	1	UBR	br_0_32	nas_0_32	Bridge	N/A	Disabled	Enabled		Edit
Security	CIT AND A										
Routing	1/33	1	UBR	br_1_33	nas_1_33	Bridge	N/A	Disabled	Enabled		Edit
DSL		l					I			1.000	
agnostics anagement	0/35	1	UBR	br_0_35	nas_0_35	Bridge	N/A	Disabled	Enabled		Edit
anayement	0/100	1	UBR	br_0_100	nas_0_100	Bridge	N/A	Disabled	Enabled		Edit
	8/35	1	UBR	br_8_35	nas_8_35	Bridge	N/A	Disabled	Enabled		Edit
	8/81	1	UBR	br_8_81	nas_8_81	Bridge	N/A	Disabled	Enabled		Edit
	0/200	1	UBR	br_0_200	nas_0_200	Bridge	N/A	Disabled	Enabled		Edit
					Ac	dd) Rem	ove	Save/F	Reboot	]	



## 3.4 Software Dial

If TD-8841 CPE work in bridged (RFC 1483 Bridged) mode when it connects Internet. You must to install dial software on your PC. There are some software working on WINDOWS in market, example for EnterNet3000、RASPPPoE、WinPeET.

How do I set up the connection in the windows XP?

- Users of Windows XP can click the "start->All Programs->Accessories-> Communications->New connection wizard", then click Next to enter the setting page.
- Please you select the "connect to the internet", and then click the Next button to enter the next page and select the "set up my connection manually", click Next to enter the next page.
- Please select the "connect using a broadband connection that requires user name and password", click Next to type the name of your ISP in the current page, and then click Next.
- Type an ISP account name and password, if you have forgotten an existing account name or password, please connect with your ISP, click Next.
- To create the connection and close this wizard, click finish to add a shortcut to this connection to your desktop.
- When you intend to assess the internet by ADSL, double-click this shortcut of dial connection in your desktop, while type the account name and password, then click **connect** to connect the Internet.

How do I set up the connection in the Windows Vista?

Users of Windows Vista can do as following: Right-press Network->Choose Properties, then you can see Figure 3-22.

Network and Inte	rnet   Network and Sharing Center	er 🗸 47 Search	
Tasks View computers and devices Connect to a network <u>Set up a connection or network</u> Manage network connections Diagnose and repair	Network and Sharing Co Network and Sharing Co TEST-PC (This computer)	enter Multiple networks	View full map — O Internet
	<b>Vetwork 2</b> (Public network Access Connection	rrk) Local only Local Area Connection 4	Customize View status
	Unidentified network (Pr Access	Local only	Customize
1	Connection Sharing and Discovery Network discovery	Off	View status
See also Internet Options Windows Firewall	File sharing Public folder sharing Printer sharing	Off     Off     Off (no printers installed)	<ul> <li>Note</li> <li< td=""></li<></ul>
	Password protected sharing	On On	$\overline{\mathbf{v}}$

Figure 3-22

Click "Set up a connection or network" in the right of this page. And choose "Set up a dial-up connection" in the new page, click Next. After that, you will see Figure 3-23, click "Set up a connection anyway" to enter next page.

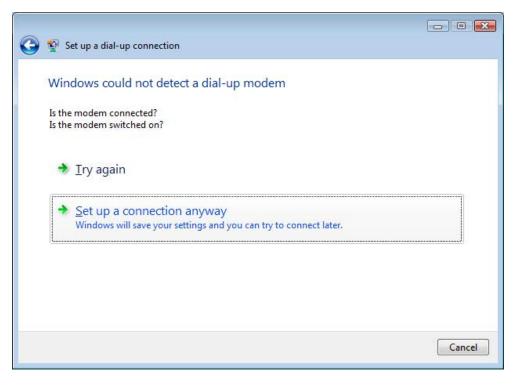


Figure 3-23

- Type the Dial-up phone number, the User name and password supplied by your ISP in the new page, if you have forgotten an existing user name or password, please connect with your ISP. Click Create to create the dial-up connection.
- Click **Close** to finish the setup.
- To connect to the Internet next time, click the Start button, click Connect to, and then click the connection you just created.

# 3.5 USB Configuration

If you use the USB interface, First of all you must install the USB's drive to the using computer. You can obtain the drives from the provided CD or download from our website. (http://www.tp-link.com)

#### **USB** Drive installation procedures

If the hardware is installed before the computer is Power On. Please turn on the computer and enter into the windows operating system, Then the operating system will identify the device. If the hardware is installed after the computer is Power On, the desktop will display the information of found the new hardware.

Then you will see the Figure 3-24 require install software for USB Device, select 'Install from a list or specific location (Advanced)'and click the **next** button to enter the next step. You will see the Figure 3-25.

Found New Hardware Wiz	ard
	Welcome to the Found New Hardware Wizard
	This wizard helps you install software for:
	TP-Link ADSL USB Remote NDIS Device
	If your hardware came with an installation CD or floppy disk, insert it now.
	What do you want the wizard to do?
	<ul> <li>Install the software automatically (Recommended)</li> <li>Install from a list or specific location (Advanced)</li> </ul>
	Click Next to continue.
	< Back Next > Cancel

Figure 3-24

Found New Hardware Wizard
Please choose your search and installation options.
<ul> <li>Search for the best driver in these locations.</li> <li>Use the check boxes below to limit or expand the default search, which includes local</li> </ul>
paths and removable media. The best driver found will be installed.
Include this location in the search:     E:\Documents and Settings\zff\Desktop\tp-adsl-usb      Browse
O Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back Next > Cancel

Figure 3-25

Select the 'search removable media(floppy, CD-ROM····)', and click the **next** button. You will see the Figure 3-26. The driver will be search and installed.

#### P Note:

You must insert the CD first.

Found New H	Hardware Wizard
Please wa	it while the wizard searches
<b>⊞</b> ⊒	TP-Link ADSL USB Remote NDIS Device
	< Back Next > Cancel

Figure 3-26

Waiting and you will see the Figure 3-27. When the driver finished installation, click **Finish** to close the installation.

Please refer to chapter 3.1 to finish the IP configuration of USB network connection. Then you could use the USB device.

Found New Hardware Wizard					
	Completing the Found New Hardware Wizard				
	The wizard has finished installing the software for:				
	TP-Link ADSL USB Remote NDIS Device				
	Click Finish to close the wizard.				
	< Back Finish Cancel				

Figure 3-27

Users of Windows Vista will see the Figure 3-28. Click the "Locate and install driver software (recommended)" to install driver software for your USB Network Interface.



Figure 3-28

After that you will enter the next page shown as Figure 3-29. Click "Don't search online".

0	Found New Hardware - USB Network Interface
	Allow Windows to search online for driver software for your USB Network Interface?
	Yes, always search online (recommended) Windows will automatically search for the latest drivers and applications for your hardware and download them to your computer.
	Yes, search online this time only Windows will search for the latest drivers and applications for this device and download them to your computer.
	Don't search online Your device may not function properly until you get the latest software.
	Please read Microsoft's privacy statement
	Cancel

Figure 3-29

Then Figure 3-30 will be displayed. Click Next to search and install the driver from your CD.

#### Note:

You must insert the CD first.

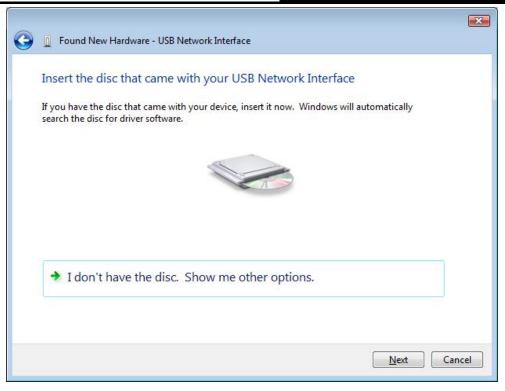


Figure 3-30

When Windows find the driver automatically, it will pop up Figure 3-31. Select "**Install this driver anyway**" to continue the installation.



Figure 3-31

Then please wait a second and you will see Figure 3-32 which indicates that the installation has been finished. Finally, click **Close** to finish it completely.

 TD-8841
 External ADSL2+ Router User Guide

 Image: Constraint of the software - TP-LINK ADSL Router USB NDIS Device
 Image: Constraint of the software for this device is device:

 Image: Constraint of the software for this device
 Image: Constraint of the software for this device

 Image: Constraint of the software for this device
 Image: Constraint of the software for this device

 Image: Constraint of the software for the software for this device
 Image: Constraint of the software for the software fo

#### Figure 3-32

You can see following figure at the bottom of the screen.





#### P Note:

If you want cut off the USB device you must disconnect the network of USB first.

# **Chapter 4. Advantage Management Setup**

In order to satisfy our customer's needs we offer an excellent Web management interface. Feel free to utilize the Advantage application and online software upgrades. The functions of the Web management interface are as follows:

- Upgrade software
- Modify the default IP address of the port of LAN (192.168.1.1)
- Modify the login password
- Configure DHCP
- > Check the information of IP and the operation status
- Configure the NAT function
- Configure the DNS parameters
- Configure RIP(Routing Information Protocol)
- Configure IP route
- Configure Security rule
- Configure DSL parameter

#### P Note:

If you want to acquire further details, please access our website (www.tp-link.com) and consult the advantage user guide of TD-8841.

# **Chapter 5. FQA**

- 1. What related parameters are required to acquire ISP when you want to access the internet by ADSL2+ Router?
  - 1) Dial user: Connection protocol, User name, Password, Value of VPI/VCI, Encapsulation mode of AAL5 and so on.
  - Static IP user: Connection protocol, WAN IP Address, Subnet Mask, Gateway, Value of VPI/VCI, Encapsulation mode of AAL5 and so on.

#### 2. About Connection protocol, VCI/VPI, Encapsulation mode of AAL5

- This product supports the PPP protocol over ATM (PPPoA), PPP over Ethernet (PPPoE), MAC Encapsulation Routing (MER), IP over ATM (IPoA) and Bridging. You may be used with any one of the five protocols above. Because the ISP in different areas supports different protocol, you must choose the protocol which is supported by your ISP.
- 2) The VPI is the English abbreviation of the Virtual Path Identifier, the VCI is the English abbreviation of the Virtual Channel Identifier, the value of VCI/VPI must be compatible with the value that provided by ISP.
- Encapsulation mode of AAL5 include: LLC/SNAP and VC\_MAX (often using LLC/SNAP).

# 3. Why the LAN's and the NIC's LED both bright, but the configuration interface is inaccessible?

- 1) Use the order of **ping 192.168.1.1** to check the Accuracy of connection.
- 2) Check the Accuracy of working NIC.
- 3) Whatever the setup of the IP address on your computer (if you close the DHCP function, you can't obtain the IP address automatically, must specify the IP address of your computer manually).
- Run the winipcfg order in the windows 95/98(run the ipconfig order in the windows 2000/Vista) to check whether setup the IP address, subnet mask, default gateway by DHCP.
- 5) Resume the ADSL2+ Router default configuration if necessary.

#### 4. Have completed all configurations, but can't dial through computer

- 1) Check the indicator of ADSL2+, it should be working normally.
- Check the accuracy of parameter of value of VPI/VCI, Encapsulation mode of AAL5 and so on, whether you need to install the software of dial the number, such as Winpoet, Enternet.
- 3) This product has the PPP dial procedure inside, so you will not need to use the dial software if your protocol is PPPoA or PPPoE, ADSL2+ Router will connect automatically.
- 4) You can check whether your ADSL2+ Router succeeds in connection with **PING** command.

# Appendix A: Default Configuration

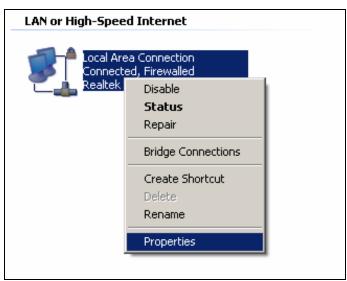
USER NAME	admin
PASSWORD	admin
IP ADDRESS	192.168.1.1
VPI/VCI	0/32,1/33,0/35,0/100,0/200,8/35,8/81

# **Appendix B: Configuring the PCs**

In this section, we'll introduce how to install and configure the TCP/IP correctly in Windows 2000/XP. First make sure your Ethernet Adapter is working, refer to the adapter's manual if needed.

#### 1. Install TCP/IP component

- 1) Right-press Network Neighbor and Choose Properties.
- 2) Right click the icon that showed below, select Properties on the prompt page.





3) In the prompt page that showed below, double click on the Internet Protocol (TCP/IP).

上 Local Area Connection Properties 🔗 🕺				
General Authentication Advanced				
Connect using:				
Realtek RTL8139 Family PCI Fast Etł				
This connection uses the following items:				
<ul> <li>✓ ■ QoS Packet Scheduler</li> <li>✓ ▼ AEGIS Protocol (IEEE 802.1x) v3.4.3.0</li> </ul>				
✓ Therest Protocol (TCP/IP)				
Install Uninstall Properties				
Description				
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.				
Show icon in notification area when connected				
Notify me when this connection has limited or no connectivity				
OK Cancel				

Figure B-2

4) The following **TCP/IP Properties** window will display and the **IP Address** tab is open on this window by default.

Now you have two ways to configure the **TCP/IP** protocol below:

#### > Setting IP address automatically

Select **Obtain an IP address automatically**, Choose **Obtain DNS server automatically**, as shown in the Figure below:

Internet Protocol (TCP/IP) Properties	<u>?</u> ×				
General Alternate Configuration					
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.					
Obtain an IP address automatically					
└ O Use the following IP address: ······	_ []				
[P address:					
S <u>u</u> bnet mask:					
Default gateway:					
□ Use the following DNS server addresses:	_ []				
Preferred DNS server:					
Alternate DNS server:					
Ad <u>v</u> anced.					
OK Can	cel				

Figure B-3

#### > Setting IP address manually

- 1 Select Use the following IP address radio button. And the following items available
- 2 If the router's LAN IP address is 192.168.1.1, type IP address is 192.168.1.x (x is from 2 to 254), and **Subnet mask** is 255.255.255.0.
- 3 Type the router's LAN IP address (the default IP is 192.168.1.1) into the **Default gateway** field.
- 4 Select **Use the following DNS server addresses** radio button. In the **Preferred DNS Server** field you can type the DNS server IP address, which has been provided by your ISP.

Internet Protocol (TCP/IP) Propertie	s	? ×
General		
You can get IP settings assigned autom this capability. Otherwise, you need to a the appropriate IP settings.		r
Obtain an IP address automatically	y	
$\neg$ • Use the following IP address:		
<u>I</u> P address:	192.168.1.241	
S <u>u</u> bnet mask:	255 . 255 . 255 . 0	
Default gateway:	192.168.1.1	
C Obtain DNS server address autom	ratically	
─● Use the following DNS server add	resses:	_
Preferred DNS server:	202 . 96 . 134 . 133	
<u>A</u> lternate DNS server:		
	Ad <u>v</u> anced.	
	OK Can	cel

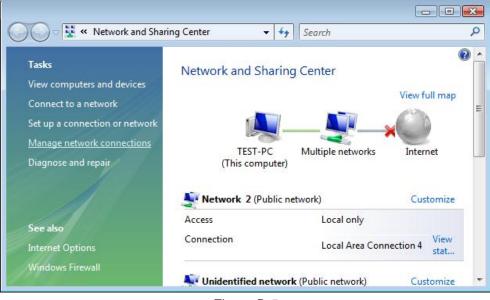
Figure B-4

#### **Please note:**

The configuration under Windows 98/Vista is a little different from that of Windows 2000/XP.

Users of Windows 98 can open **TCP/IP Properties** according to the following: Right-click (Mouse) **Network Neighbor** -> Choose **Properties** -> Double-click **TCP/IP PCI Fast Ethernet Adapter**.

Users of Windows Vista can do following: Right-press **Network**->Choose **Properties**, then you can see Figure B-5.





Click "Manage network connections" in the right of this page. Then do as following: Right-press Local Area Connection ->Choose Properties->Double click Internet Protocol Version 4 (TCP/IPv4).